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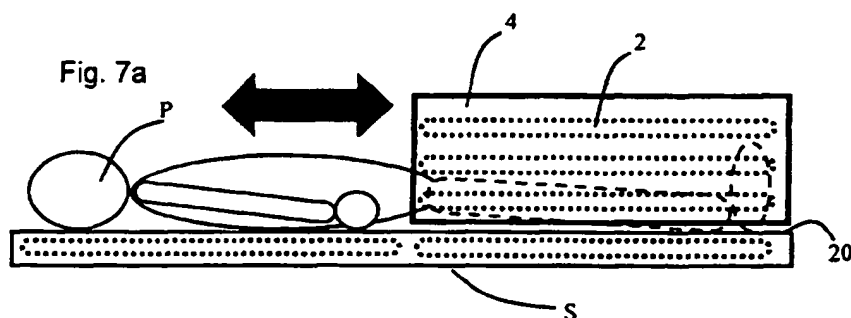
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(54) **Therapeutic light source**

(57) A light source for therapy, such as photodynamic therapy, comprises one or more low pressure or medium/high pressure discharge tubes. In one aspect, the light source comprises a non-planar array of substan-

tially straight tubes. In another aspect, the light source comprises one or more such tubes mounted in a housing having an aperture allowing part of the patient to be located within the housing.



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# PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention EP 01 30 3412 shall be considered, for the purposes of subsequent proceedings, as the European search report

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X,D	WO 99 56827 A (DUSA PHARMACEUTICALS INC ;LEPPELMEIER ELTON (US); LUNDAHL SCOTT (U) 11 November 1999 (1999-11-11)	1-4,16, 17,38	A61N5/06
Y	* page 2, line 29 - page 5, line 26 * * page 9, line 34 - page 13, line 2 * * page 16, line 20 - page 17, line 2; claims 1-3,12,13,18-22,41,45 *	5-15	
X	DE 40 26 327 A (GOLF GMBH & CO KG) 27 February 1992 (1992-02-27) * column 1, line 20 - column 2, line 48 * * column 3, line 15 - column 3, line 26; claims 1-10; figure 1 *	1-10,12, 13,16	
X	DE 76 12 890 U (WALDMANN HERBERT) 9 December 1976 (1976-12-09) * the whole document *	1,2,5-8, 10-16	
X,D	WO 97 40888 A (GLAXO GROUP LTD ;SAYRE ROBERT M (US); SHEPHERD JAMES G (US)) 6 November 1997 (1997-11-06)	16,38	
Y	* page 6, line 8 - page 9, line 8 * * page 10, line 9 - page 10, line 18; figures 1,2 *	1-15	TECHNICAL FIELDS SEARCHED (Int.Cl.7) A61N
-/--			
INCOMPLETE SEARCH			
<p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims.</p> <p>Claims searched completely : 1-38</p> <p>Claims searched incompletely :</p> <p>Claims not searched : 39-46</p> <p>Reason for the limitation of the search: Article 52 (4) EPC - Method for treatment of the human or animal body by therapy</p>			
Place of search MUNICH		Date of completion of the search 20 February 2003	Examiner Rick, K
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : member of the same patent family, corresponding document</p>	
<p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p>			

EPO FORM 1503 (3.12.92) (P04007)



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Application Number

EP 01 30 3412

### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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## PARTIAL EUROPEAN SEARCH REPORT

Application Number  
EP 01 30 3412

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	EP 0 884 066 A (SLI LICHTSYSTEME GMBH) 16 December 1998 (1998-12-16) * the whole document *	1-15	
	---		
X	DE 28 04 228 A (WOLFF FRIEDRICH) 2 August 1979 (1979-08-02) * the whole document *	38	
Y		1-15	
	---		
X	WO 00 02491 A (HARTH YORAM ; KORMAN AVNER (IL)) 20 January 2000 (2000-01-20) * page 11, line 3 - page 13, line 17; claims 1,4,8,9 *	18-37	
	---		
X	DE 196 47 676 A (SCHULZE ANDREAS DIPL ING) 20 May 1998 (1998-05-20) * column 2, line 56 - column 2, line 64 * * column 4, line 21 - column 4, line 29 * * column 5, line 17 - column 5, line 33 *	18-38	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
	---		
X	US 4 444 190 A (MUTZHAS MAXIMILIAN F) 24 April 1984 (1984-04-24) * column 2, line 22 - column 3, line 5 * * column 4, line 22 - column 4, line 55 *	18-38	
	---		
X	GB 2 272 278 A (CANCER RES CAMPAIGN TECH) 11 May 1994 (1994-05-11) * page 3, line 4 - page 4, line 15 * * page 9, line 6 - page 12, line 25; claims 1-5,9,10,14,15 *	18-31, 33-37	
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**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number  
EP 01 30 3412

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

**1. Claims: 1-17,38**

A therapeutic light source comprising the following features.

**1.1. Claims: 1-15**

A non-planar array of straight discharge tubes to emit light in the visible spectrum .

**1.2. Claim : 16**

One or more discharge lamps in a housing with an aperture allowing a part of the patient's body to be inserted into the housing and a suitable concave reflector mounted within said housing.

**1.3. Claim : 17**

One or more fluorescent grid lamps having a plurality of folds in the same plane.

**1.4. Claim : 38**

A plurality of low pressure discharge lamps mounted in a housing with a transparent or translucent cover over its aperture the cover including a detachable filter.

**2. Claims: 18-37**

A therapeutic light source comprising at least one medium/high pressure discharge lamp providing light within a bandwidth of less than approximately 160 nm.

Please note that all inventions mentioned under item 1, although not necessarily linked by a common inventive concept, could be searched without effort justifying an additional fee.

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 30 3412

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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20-02-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9956827	A	11-11-1999	US 6223071 B1	24-04-2001
			AU 753997 B2	31-10-2002
			AU 3858699 A	23-11-1999
			BR 9911781 A	25-09-2001
			CA 2331090 A1	11-11-1999
			CN 1308553 T	15-08-2001
			EP 1075315 A2	14-02-2001
			HU 0101340 A2	28-09-2001
			JP 2002513660 T	14-05-2002
			NO 20005342 A	13-12-2000
			PL 344106 A1	24-09-2001
			TR 200003233 T2	21-02-2001
			WO 9956827 A2	11-11-1999
			US 2001021812 A1	13-09-2001
DE 4026327	A	27-02-1992	DE 4026327 A1	27-02-1992
DE 7612890	U	09-12-1976	DE 7612890 U1	09-12-1976
WO 9740888	A	06-11-1997	AU 2769497 A	19-11-1997
			WO 9740888 A1	06-11-1997
EP 0884066	A	16-12-1998	DE 19724299 A1	10-12-1998
			EP 0884066 A2	16-12-1998
DE 2804228	A	02-08-1979	DE 2804228 A1	02-08-1979
WO 0002491	A	20-01-2000	AU 4645099 A	01-02-2000
			EP 1100366 A1	23-05-2001
			WO 0002491 A1	20-01-2000
			JP 2002526128 T	20-08-2002
			US 2001023363 A1	20-09-2001
DE 19647676	A	20-05-1998	DE 19647676 A1	20-05-1998
US 4444190	A	24-04-1984	DE 3044184 A1	16-06-1982
			AT 8844 T	15-08-1984
			CA 1186383 A1	30-04-1985
			DE 3165429 D1	13-09-1984
			EP 0052765 A1	02-06-1982
GB 2272278	A	11-05-1994	EP 0618824 A1	12-10-1994
			WO 9409850 A1	11-05-1994
			US 6171332 B1	09-01-2001
			US 5843143 A	01-12-1998
			US 6461866 B1	08-10-2002

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82